

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
WESTERN DIVISION
NO. 5:23-CV-00493-FL**

INTERDIGITAL INC.,)	
INTERDIGITAL VC HOLDINGS, INC.,)	
INTERDIGITAL PATENT HOLDINGS,)	
INC., and)	
INTERDIGITAL MADISON PATENT)	
HOLDINGS SAS,)	
Plaintiffs,)	OPPOSITION TO PLAINTIFF'S
v.)	MOTION FOR LEAVE TO FILE
)	SUR-REPLY
)	
LENOVO (UNITED STATES) INC.,)	
MOTOROLA MOBILITY LLC, and)	
LENOVO PC HK LIMITED)	
Defendants.)	
)	

**LENOVO HK'S OPPOSITION TO PLAINTIFFS'
MOTION FOR LEAVE TO FILE SUR-REPLY**

InterDigital's request to file a sur-reply (ECF No. 87) should be denied. "Neither the Federal Rules of Civil Procedure nor this court's local rules of procedure provides for the filing of surreply briefs." *Spivey v. Rsch. Triangle Reg'l Pub. Transp. Auth.*, No. 5:14-CV-44-FL, 2015 WL 5513320, at *9 (E.D.N.C. Aug. 10, 2015). Indeed, the local rules "discourage" sur-reply briefs. Local Civ. R. 7.1(g)(1); *see also Stark v. United States*, No. 7:18-CV-115-M, 2020 WL 1970711, at *3 (E.D.N.C. Apr. 9, 2020) ("The Local Rules of this court do not allow for the submission of sur-replies."). "[C]ourts generally allow a party to file a surreply 'only when fairness dictates based on new arguments raised in the previous reply.'" *Spivey*, 2015 WL 5513320, at *9 (citation omitted). Although InterDigital cites inventor testimony as the basis for its motion, its proposed sur-reply fails to support the purported justification. InterDigital's sur-reply is filled with new arguments untethered to the inventor testimony and should not be allowed.

I. ARGUMENT

InterDigital improperly argues that the '877 inventor's testimony justifies its sur-reply, when in fact the testimony supports Lenovo HK's original position. The inventor of the '877 patent literally performed the claimed function composition live at deposition with a pen on the back of a deposition exhibit as Lenovo HK argued was possible in support of its Motion. Because InterDigital cannot deny the event, it instead masquerades additional merits arguments as a sur-reply. Not only is this an improper and unwarranted use of a sur-reply, InterDigital is wrong on the merits. Lenovo HK did not present new arguments in reply; InterDigital's motion for leave should be denied.

A. Lenovo HK's Reply Did Not Raise New Arguments

In its briefing, Lenovo HK consistently identified the '877 patent's abstract idea of "coding and decoding image data" for *Alice*, Step One. *See, e.g.*, ECF No. 70 ("Opening Br.") at 1, 22, 24; ECF No. 82 ("Reply Br.") at 1, 7. Lenovo HK explained that the '877 patent's coding and decoding process involves using a generic computer to apply a single combined filter formed by mathematically combining two separate filters. Opening Br. at 24-25. Lenovo HK consistently argued that combining two mathematical functions (filters) into a single function entails nothing more than the basic algebraic concept of function composition, a fundamental mathematical concept routinely performed using pen and paper. *See* Opening Br. at 24-25, 30, Reply Br. at 9-10. And "math is not patentable." *FullView, Inc. v. Polycom, Inc.*, 485 F. Supp. 3d 1156, 1165 (N.D. Cal. 2020). Lenovo HK's reference to the inventor testimony that the '877 patent's jointly-applied filters (*i.e.*, single mathematically-combined filter) could be derived using "pen and paper" only "further confirm[s] the abstract nature of the claims." Reply at 10.

InterDigital argues that the '877 patent is not abstract because it improves computer functionality via use of "a single motion compensation interpolation filter." ECF No. 74 ("Oppo.

Br.”) at 22. But this single filter is merely the result of the pen-and-paper exercise of combining two mathematical functions into a single function using a fundamental mathematical operation. A long line of Federal Circuit precedents, squarely applicable here, holds—in cases involving *software*—that a “‘telltale sign of abstraction’ is when the claimed functions are ‘mental processes that can be performed in the human mind’ or ‘using a pencil and paper.’” *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1361-62 (Fed. Cir. 2023) (quoting *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1316 (Fed. Cir. 2021); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371-72 (Fed. Cir. 2011)). Although the inventor testimony at issue confirms the single-filter of the ’877 patent is the result of a pen-and-paper exercise, the inventor testimony is not necessary for the Court to reach this conclusion. *See PersonalWeb Techs. LLC*, 8 F.4th at 1316 (holding claims were drawn to functions that could be performed using a pencil and paper without citation to inventor testimony).

InterDigital turns a blind eye to this Federal Circuit authority, resorting instead to the readily distinguishable *UMN* case from the Northern District of California. The *UMN* court’s caution about the pen-and-paper analogy—that “a human cannot always achieve the same results as a computer”—is inapplicable here because the inventor achieved literally the same result using pen and paper in deposition. It was not simply conjecture. *Regents of the Univ. of Minn. v. LSI Corp.*, No. 5:18-cv-00821-EJD, 2023 U.S. Dist. LEXIS 150306, at *17 (N.D. Cal. Aug. 25, 2023) (finding that a claim limitation at issue “prevents a human from being able to practice any claim with pen and paper”). And the authority cited by the *UMN* case, *California Institute of Technology v. Hughes Communications*, came well before the *Trinity Info Media* and *PersonalWeb* decisions from the Federal Circuit that reaffirmed the relevance of pen-and-paper analogy to software cases. A computer used to implement the ’877 patent does nothing more

than apply the result of the pen-and-paper operation as an “obvious mechanism for permitting a solution to be achieved more quickly,” which the Federal Circuit has held is insufficient to confer eligibility. *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015). Furthermore, InterDigital’s citation to *California Institute of Technology v. Broadcom Ltd.*, is inapposite. 25 F.4th 976, 988 (Fed. Cir. 2022). There, the claim described how a signal encoding method performed the mathematical operation on a received block of data to generate portions of codewords, which the Federal Circuit held in summary fashion involved “more than a mathematical formula.” *Id.* at 984, 988. In contrast, the claims of the ’877 patent recite only the functional objectives resulting from the mathematical operation itself, which does not confer eligibility. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016).

The *Alice*, Step Two argument InterDigital advances in its sur-reply (at 4-5) falls short of identifying a necessary inventive concept that transforms the abstract idea of coding and decoding image data into patentable subject matter. As Lenovo HK explained, each of the claimed coding and decoding steps were well-known before the ’877 patent was filed. Opening Br. at 29; Oppo. Br. at 27. “If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018). There is nothing inventive about applying a pen-and-paper-combined function on a generic computer. The claim limitation “no resampled version of said reconstructed reference image is stored in the decoded picture buffer,” which InterDigital argues provides the inventive concept, is an obvious and inherent byproduct of combining two calculation steps (one for each of the two functions) into a single mathematical calculation. ECF No. 87-1 (“Proposed Sur-reply”) at 4. These benefits are those “that flow from performing an

abstract idea in conjunction with [] well-known” computer hardware and are insufficient to transform the abstract idea into patent-eligible subject matter. *BSG Tech LLC*, 899 F.3d at 1288.

B. InterDigital Raises Improper New Arguments in Its Proposed Sur-Reply

Ironically, after alleging that Lenovo HK improperly introduced new arguments into its Reply, InterDigital presents a new exhibit as part of its sur-reply. The Court should not credit these new arguments or consider the exhibit. *See* Proposed Sur-reply at 3-5. As an initial matter, InterDigital’s exhibit is not part of the pleadings and its content is not subject to judicial notice. Rather, it is one document the applicant submitted to the patent office during prosecution of the ’877 patent to provide technical information about possible prior art, which occurs as part of the normal information exchange between the applicant and patent office. ECF No. 87-2 (Proposed Sur-reply Ex. A) at 3; Proposed Sur-reply at 4. The contents of the exhibit, therefore, is not a matter of public record such as whether a patent application has been filed or a patent has issued. *See Hooker Furniture Corp. v. GTR Leather, Inc.*, No. 1:20CV451, 2022 U.S. Dist. LEXIS 29985, at *6 (M.D.N.C. Feb. 18, 2022). Moreover, the contents of the exhibit, particularly as interpreted by InterDigital, is not the type of material courts take judicial notice of under Federal Rule of Evidence 201(b)(2). *Ohio Valley Envtl. Coal. v. Aracoma Coal Co.*, 556 F.3d 177, 217 (4th Cir. 2009) (declining to take judicial notice because the party seeking notice sought “notice of its own interpretation of the contents of those documents” and not just notice of their existence). Moreover, nothing links the exhibit to the claims at issue, and the Court need not consider this extrinsic information inapplicable to the § 101 analysis. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (“The § 101 inquiry must focus on the language of the Asserted Claims themselves.”).

II. CONCLUSION

For these reasons, Lenovo HK requests that InterDigital’s motion for leave be denied.

This 30th day of April 2024.

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